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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,847	09/30/2003	Xiaomang Zhang	0717-0518P	3716
2292 7590 01/28/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SANDOVAL, KRISTIN D	
			ART UNIT 2132	PAPER NUMBER
			NOTIFICATION DATE 01/28/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

Application No.

10/673,847

Applicant(s)

ZHANG, XIAOMANG

Examiner

Kristin D. Sandoval

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_:
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-31 are pending.

#### *Response to Arguments*

2. Applicant's arguments, see pgs. 4-6 of applicant's Remarks, filed October 2, 2007, with respect to the rejection(s) of claim(s) 1-31 under 35 U.S.C. 112 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kuroda et al.

#### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 4, 6, 7, 12-14, 20 and 26 of Patent Application No. 10/631813 contain(s) every element of claim of the instant application and as such are not patentably distinct from an earlier patent claim(s).

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“A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus).” ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

“Claim 12 and Claim 13 are generic to the species of invention covered by claim 3 of the patent. Thus, the generic invention is “anticipated” by the species of the patented invention. Cf., Titanium Metals Corp. v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim). This court’s predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. In re Van Ornum, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); Schneller, 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claims 12 and 13 were properly rejected under the doctrine of obviousness-type double patenting” (In re Goodman (CA FC) 29 USPQ2d 2010 (12/3/1993)

This is a provisional double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 4, 5, 7, 14-20, 22 and 27-31 rejected under 35 U.S.C. 102(e) as being anticipated by Azuma, U.S. Patent No. 6,704,608.

Regarding Claims 1, 2, 4, 5, 7, 14, 15, 18, 19, 20, 27-31, Azuma teaches an authentication system comprising:

an IC card, and an electronic seal, wherein:

the IC card includes: a random number generation section for generating a random number, a prescribed key memory section for storing a prescribed key, a first encryption section for encrypting the generated random number based on the prescribed key, and a first output section for outputting the random number encrypted based on the prescribed key; ("The IC card generates a random number M, encrypts it using the public key Mb, and sends an encrypted numeral WM to the second terminal apparatus" Column 19, lines 66-67, Column 20, line 1) The Examiner interprets the prescribed key as a public key. The Examiner interprets that the public key must be inherently stored in a memory section before encrypting the random number with the public key. The Examiner interprets the output section as the section that outputs the encrypted random number to the second terminal device.

Azuma further teaches an electronic seal which includes:

a second input section for inputting the random number encrypted based on the prescribed key, a secret key memory section for storing a secret key related to the prescribed key, a second decoding section for decoding, based on the secret key, the random number encrypted based on the prescribed key, a second encryption section for encrypting, based on the secret key, the random number decoded based on the secret key, and a second output section for outputting the random number encrypted based on the secret key; ("The second terminal apparatus decrypts

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the numeral WM, using a secret key, encrypts it using a public key to obtain the numeral WN, and sends the numeral WN to the IC card." Column 20, lines 1-4) The Examiner interprets the secret key memory section, the section that stores the secret key used to encrypt the numeral WM. The Examiner interprets the second encrypting section as the section that encrypts based on the secret key. The Examiner interprets the second output section the section that sends the random number back to the IC card.

Azuma further teaches the IC card further includes: a first input section for inputting the random number encrypted based on the secret key, a first decoding section for decoding, based on the prescribed key, the random number encrypted based on the secret key, and a comparison section for comparing the random number generated by the random number generation section and the random number decoded based on the prescribed key; and the IC card and the electronic seal mutually exchange data for performing authentication. ("The IC card receives from the second terminal apparatus the numeral WN, obtains a numeral N by decrypting the numeral WN, and judges whether the numeral n matches the numeral M. When they do not match, the IC card abnormally ends the mutual authentication process. When they match, the IC card sends a confirmation command to the second terminal apparatus in step \$82 that ends the mutual authentication" Column 20, lines 5-11).

The Examiner interprets the first input section as the section that receives the random number from the terminal The Examiner interprets the first decoding section as the section that decrypts the numeral WN. The Examiner interprets the comparison section as the judging Unit that judges whether the numeral n matches the numeral M.

Azuma teaches a mobile device including an electronic seal. ("the second terminal apparatus is used in a machine for payment, such as a cash dispenser" Column 17, lines 5-6).

Regarding claims 3, 16 and 17, Azuma teaches an electronic seal according to claim 1, wherein:

when the input section inputs a first communication request ID ("The second terminal apparatus is used in a machine for payment...a touch panel for receiving an input of an identification number of an IC card owner" Column 17, lines 5-6, 11-12)

the electronic seal further includes a communication request ID memory section for storing a second communication request ID, and a comparison section for comparing the decoded first communication request ID and the second communication request ID, ("The host apparatus has a database which stores a plurality of entries of IC card code numbers in correspondence with a plurality of pieces of bio-information, so that the host apparatus can judge whether the card owner is proper" Column 18, lines 60-64) and

when the decoded first communication request ID matches the second communication request ID, the encryption section encrypts the decoded random number ("When a combination of the bio-information read by the sensor and the typed code number is found in the database, the controller 73 goes to the process in the flowchart shown in Figure 24" Column 19, lines 2-5).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 8, 9, 23 and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma in view of Brinkmeyer et al. (Brinkmeyer), U.S. Patent No. 5,708,712.

As per claims 6, 8, 9, 23 and 24:

Azuma fails to teach cancelling authentication and initializing the keys however, Brinkmeyer discloses initializing encryption keys and cancelling authentication (8:53-67, 14:50-65).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to initialize the keys and have the ability to cancel authentication in order to have starting keys to work with.

6. Claims 10-13 and 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma in view of Stefik et al. (Stefik), U.S. Patent No. 5,629,980.

As per claims 10-13 and 25-26:

Azuma fails to teach a sum setting mode, times setting mode, period setting mode and clock mode. However, Stefik discloses setting a limit of the sum of the number of times a user can copy a digital work and a given period of time for which a user has access to the work and a clock (1:44-59, 4:6-13, 21:45-61).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have a variety of modes in order to limit the user.

### ***Conclusion***



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristin D. Sandoval whose telephone number is 571-272-7958.

The examiner can normally be reached on Monday - Friday, 8:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KDS

KDS

Kristin D Sandoval  
Examiner  
Art Unit 2132

  
Benjamin E. Carter  
Primary Examiner  
Art Unit 2132